

What is claimed is:

1. A document generation system for producing a structured document from information derived from an information repository, comprising:

5           a source of document generation control information determining a desired presentation format and content structure of a generated document;

10           a document template generator for applying said control information in generating a template document structure comprising item locations designated for ordered data items; and

15           a document processor for applying said control information in filling template document item locations with corresponding ordered data elements derived from said information repository, to produce a generated document.

20           2. The system according to claim 1, wherein said document processor further applies said control information in transforming said generated document to be compatible with said desired presentation format to produce an output document.

25           3. The system according to claim 2, wherein said document processor further transforms said output document for incorporation in an electronic browseable directory.

4. The system according to claim 1, wherein said document processor applies said control information in filling template document item locations by, identifying information elements in said information repository associated with individual item locations using attributes in said control information associated with individual locations and by retrieving information elements identified by said attributes from said information repository for insertion in corresponding item locations.

5. The system according to claim 1, wherein said document processor examines said template document item locations and marks them for content filling with a content identification marker, and retrieves information elements identified by said marker from said information repository for insertion in corresponding item locations.

6. The system according to claim 5, wherein said document processor also marks an item location in said template document with a content style attribute, and retrieves a corresponding content style attribute identified by said marker from said information repository and uses said attribute in processing an information element for insertion in said item location.

7. The system according to claim 1, wherein said template

document comprises a row and column tabular structure of item locations and said document processor searches said information repository for corresponding data elements in one or more of, (a) row order and (b) column order.

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8. The system according to claim 1, wherein said generated document comprises one or more of, (a) an SGML document, (b) an XML document, (c) an HTML document (d) a document encoded in a language incorporating distinct content attributes and presentation attributes, and (e) a multimedia file.

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9. The system according to claim 1, wherein said source of document generation control information comprises an SGML document comprising an expandable document structure.

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10. The system according to claim 1, wherein said document template generator applies said control information to generate said template document structure by, expanding item location nodes in a data structure derived from said control information, said item location nodes being designated to hold ordered data items.

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11. The system according to claim 1, wherein said document template generator expands said data structure derived from said control information in response to an

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instruction in said control information.

12. The system according to claim 1, wherein said control information comprises an expandable document structure identified by a language type definition descriptor and said document template generator generates a template document structure by expanding said expandable document structure in a manner compatible with said document structure language identified by said descriptor.

13. A document generation system for producing a structured document from information derived from a database, comprising:

a source of document generation control information comprising an expandable document structure, said control information determining a desired presentation format and content structure of a generated document;

a document template generator for expanding said expandable document structure to provide a template document structure comprising item locations designated for hierarchically ordered data items; and

a document processor for applying said control information in filling template document item locations with corresponding hierarchically ordered data elements derived from said database, to produce a generated document.

14. The system according to claim 13, wherein said document processor examines said template document item locations and marks them for content filling with a content identification marker, and retrieves information elements identified by said marker from said information repository for insertion in corresponding item locations.

15. The system according to claim 14, wherein said document processor also marks an item location in said template document with a content style attribute, and retrieves a corresponding content style attribute identified by said marker from said information repository and uses said attribute in processing an information element for insertion in said item location.

16. A graphical User interface system supporting processing of a document specification file to provide information supporting generating a structured document, comprising:

a menu generator for generating:

at least one menu permitting User selection of said document specification file and a document format; and

an icon for generating said structured document from said document specification corresponding to a database, wherein said structured document comprises

content placeholders and attribute placeholders.

17. The graphical User interface of claim 16, further comprising a second menu for generating said structured document.

18. The graphical User interface of claim 17, wherein said second menu for generating said structured document further comprises:

- a document structured template transformer;
- a document content filler; and
- a document maker.

19. A method for generating a structured document from information derived from a database, comprising the steps of:

receiving generation control information comprising an expandable document structure, said control information determining a desired presentation format and content structure of a generated document;

expanding said expandable document structure to provide a template document structure comprising item locations designated for ordered data items; and

applying said control information in filling template document item locations with corresponding ordered data elements derived from said database, to produce a generated

document by, retrieving information elements from said database determined by content identification attributes in said control information for insertion in filling template document item locations.

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20. The method according to claim 19, further including the step of applying a content style attribute in said control information in processing an information element for insertion in said template document item locations.

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21. The method according to claim 20, wherein said content style attribute comprises at least one of, (a) number of characters per line, (b) number of lines per page, (c) font type and size, and (d) text style.